ABSTRACT OF THE DISCLOSURE

Within a method of making an optical interference filter, sample spectra and measurements of a predetermined characteristic associated with respective spectra are provided. Upon selection of an initial number of filter layers and a thickness for each layer, a transmission spectrum is determined. Each sample spectrum is applied to a regression formula that relates interaction of light with the transmission spectrum to a regression value. A comparison relationship between the calculated regression values and the sample measurements is defined and optimized, wherein thickness of each layer is an optimization variable.